REMARKS

Entry of the foregoing amendments and reconsideration of the application pursuant to and consistent with 37 CFR 1.112 and in light of the remarks which follow are respectfully requested. By the present amendments the claims have been rewritten as new claims 272-306 in order to expedite prosecution and preclude any printer errors on grant. Particularly, claim 272 contains the precise hybridization conditions.

Claims 235-243 and 245-271 are rejected under 35 U.S.C. §112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject mater which applicant regards as the invention. This rejection is respectfully traversed to the extent it may be applicable to the claims a amended. However, it is believed that the rejections are now moot.

The criticism of prior claim 235 concerning "encoded by SEQ ID NO:21" is well taken. The wording is not in the present claim.

The criticism of "contained in" is moot as the wording has been changed to "in" as suggested by the Examiner.

Prior claim 248 was indicated to be ambiguous as to its intent. This should be moot as the new claim provides explicitly that the assay uses a cell that expresses a T1R2 polypeptide as claimed herein.

The intent of prior claim 249 is clear. The claim is meant to broadly encompass any cell membrane that expresses or is attached to the subject T1R2 polypeptide.

Prior claims 259 and 260 were asserted to be indefinite in the recitation of the label and its relationship. In order to make this explicitly clear new claim 294 recites that the label is attached to the T1R2 polypeptide or another compound used in the binding assay. The claim as rewritten would be clear to one skilled in the art.

Based on the foregoing, the prior 112 second paragraph rejections should be vacated.

Claims 235 and 243-271 were also rejected under 35 USC 112 first paragraph as being broader than the enabling disclosure. Essentially, the position of the Examiner is that the subject application only enables binding assays that use T1R2 expressed in association with T1R3 and therefore that the claims are broader than the enabling disclosure. This rejection is respectfully traversed, however, it is anticipated that it should be moot based on the present amendments and arguments.

At the outset it is noted that the claims use open claim phraseology and therefore do not exclude binding assays wherein T1R2 is expressed in association with T1R3. Therefore, the claims as written are enabled.

.It is further respectfully submitted that the claims are not broader than the scope of the enabling disclosure. To the contrary, subsequent to the filing of this application functional and binding assays have been reduced to practice using taste receptor

polypeptides comprising the transmembrane containing binding regions of T1R2 polypeptides and chimeras thereof that retain the transmembrane containing binding region of the T1R2 polypeptide and the extracellular region of a different G protein coupled receptor. (See e.g., published Senomyx patent application US20070161053; Xu et al., PNAS 101(39):14258-14263 (Sept. 2004); and Cui et al., Curr Pharm. Des. 12(35):4591-4600 (2006)). These references suport a conclusion that the subject T1R2 polypeptides contain binding residues that are involved in ligand binding and moreover support a conclusion that the subject T1R2 binding assays may be practiced in the presence or absence of T1R3.

In addition, in further support of this expectation, it is known that T1R3 knockouts recognize sweeteners (see Delay et al, Chem Senses 31(4):351-7 (206)); and sweet and umami ligands (Damak et al., Science 301(5634):850-3 (2003)) which suggests that the functionality of the sweet receptor and of T1R2 does not require the presence of the T1R3 submit polypeptide and that T1R2 potentially can be used by itself or in combination with other GPCR polypeptides to screen for ligands that bind thereto.

Absent evidence to the contrary, it would be anticipated that the binding residues in T1R2 that are involed in ligand binding would still bind ligands such as sweet tastants. Also, it should be noted that the subject claims are directed to binding assays not functional assays. Therefore, even assuming for the sake of argument (which is not conceded) that T1R2 is not functional alone, this would not preclude enablement since it

would still be anticipated that the T1R2 polypeptide which contains domains involved in ligand recognition would be able to bind to specific ligands and therefore that the claims would be enabled based on the teachings of this application.

Withdrawal of the 112 enablement rejection is respectfully requested since (i) the as-filed specification enables assays using taste receptors that comprise a T1R2 taste receptor polypeptide as currently claimed and/or (ii) since it is known that the T1R2 polypeptide contains residues that are involved in ligand binding and recognition which are present in the T1R2 polypeptides used in the claims and (iii) further since it has been established in T1R3 knockouts that the response to sweet ligands does not require the presence of T1R3.

As noted previously, this application teaches the role of T1R2 in sweet taste transduction and that this receptor contains binding residues that specifically responds to sweet ligands. Therefore it would be apparent to one skilled in the art that a T1R2 variant which falls within the genus of potential T1R2 polypeptides may be used in functional assays as claimed herein. Based on the foregoing the 112 enablement rejection should not be maintained against the current claims.

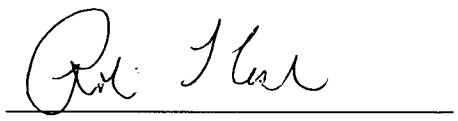
Also the double patenting rejection based on 10/725,276 is noted. The Examiner is requested to hold the rejection in abeyance until both applications are in condition for allowance.

It is anticipated that the present amendments and remarks will place this case in condition for allowance. Based on the foregoing, a Notice to that effect is respectfully solicited. Reconsideration and allowance of all claims are respectfully requested. However, if any issues remain after consideration of this Amendment, Examiner Brannock is respectfully requested to contact the undersigned by telephone (202-419-2018) so that these issues can be resolved by Examiner's Amendment or a Supplemental Response.

Applicants believe that no fee is due with the filing of this Amendment. However, in the event that the calculations of the Office differ, Commissioner is hereby authorized to charge or credit any such variance or credit any overpayment to the undersigned's Deposit Account No. 50-0206.

Respectfully submitted,

Date: **July 19, 2007**



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